



Texas Instruments TI-Nspire CX Power Connector Replacement

Solves some no power issues.

Written By: trogfield



INTRODUCTION

This tutorial is to reattach the charging female connector to the calculator.

Step 1 — Remove top feet



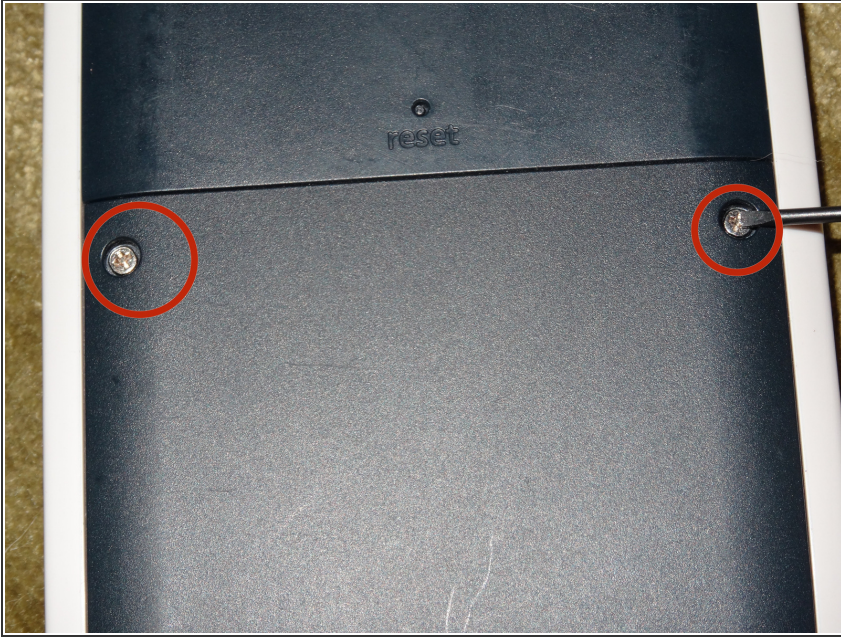
- Take top feet off.

Step 2



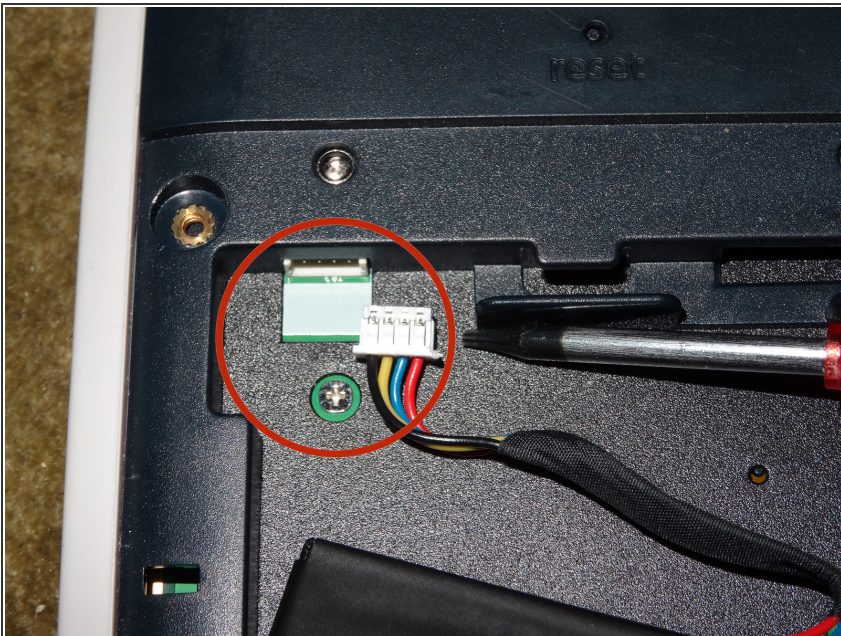
- Unscrew top "clutch" shaped screws using 1mm jewelers screwdriver.

Step 3



- Remove battery cover

Step 4



- Remove battery connector by grabbing lead and pulling out with fingers.
- An alternative is to use pliers to pull the tab out, or a screwdriver to wedge the side tabs off, but the plastic is delicate.

Step 5



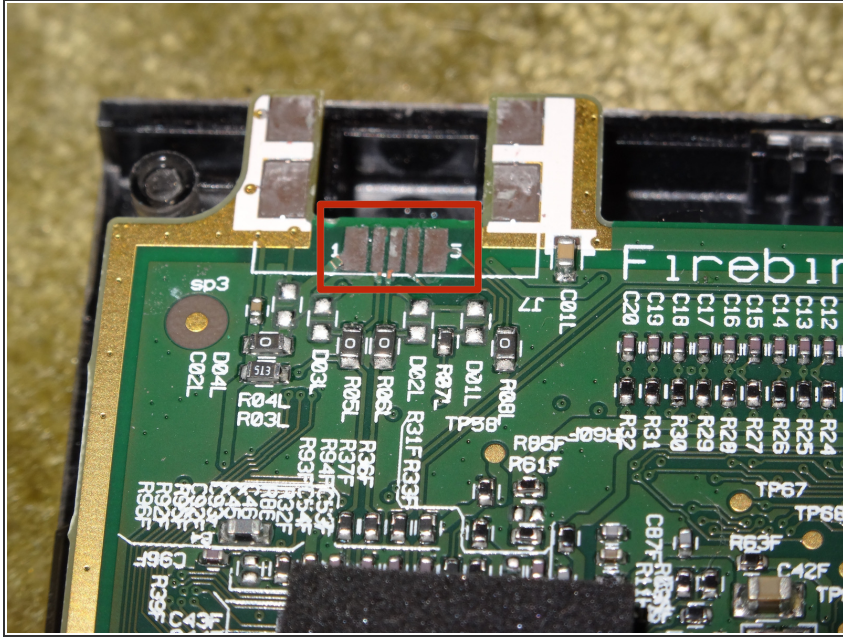
- Remove center cover "clutch" screws with 1mm screwdriver.

Step 6



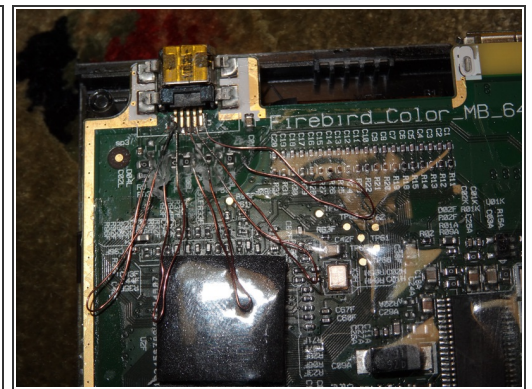
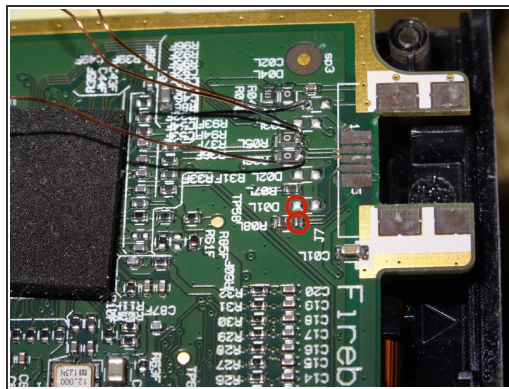
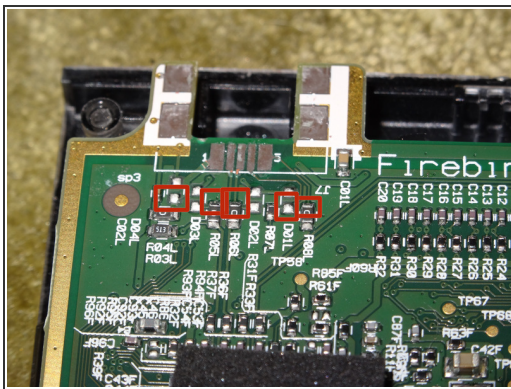
- Pry off front face with fingers and nails, otherwise spudger. Removal does not take too much force. work around one edge to the top.

Step 7



- Inspect power connector damage. This calculator has all of the power contacts torn off.
- Follow the traces to see where to solder on replacement leads.
- I guessed the locations of where new leads were needed and got lucky.

Step 8

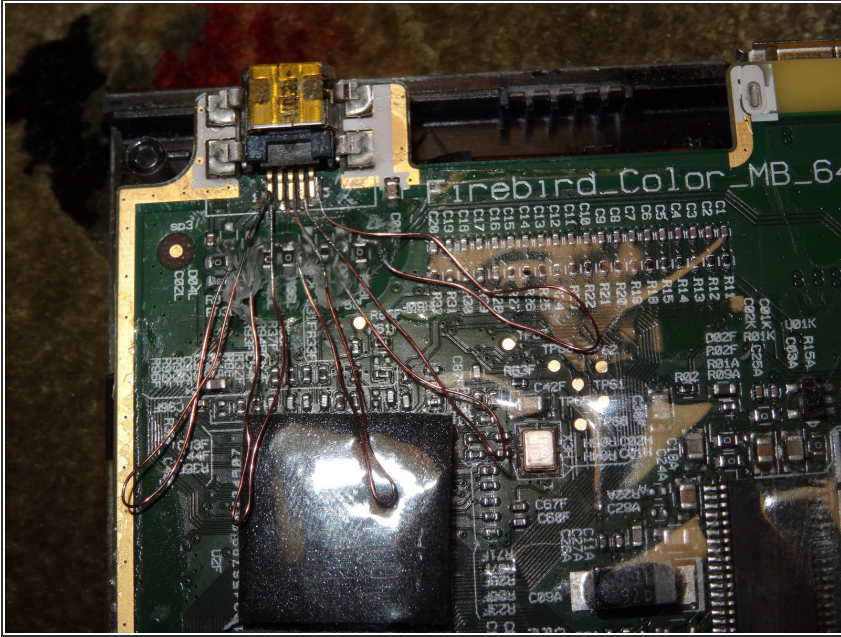


- Solder small stranded wires torn out of a stranded cable.
- Pre-tin the leads so solder sticks more easily onto the copper. Do this by adding solder to tip of soldering iron, then rubbing across one of the ends of the replacement wire.
- Do this to both sides of all the wires, tin both the front and back each single end. The tin does not automatically flow to both sides, therefore tediously tin the front, then back of one side of wire.



Shakey hands make this process hard.

Step 9

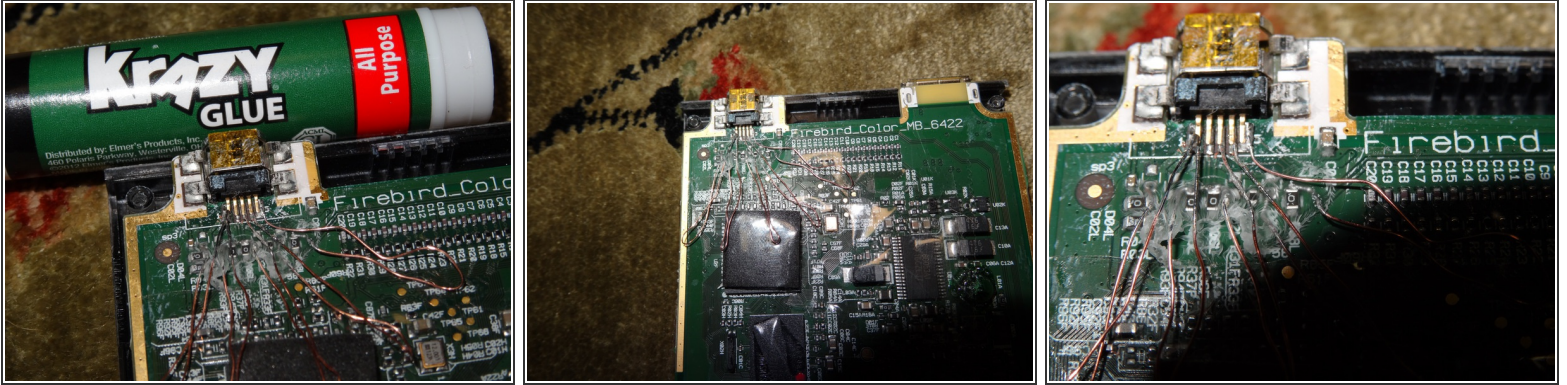


- Tape off the board to prevent shorting.

⚠ Misidentification of replacement lead locations will cause disoperation.

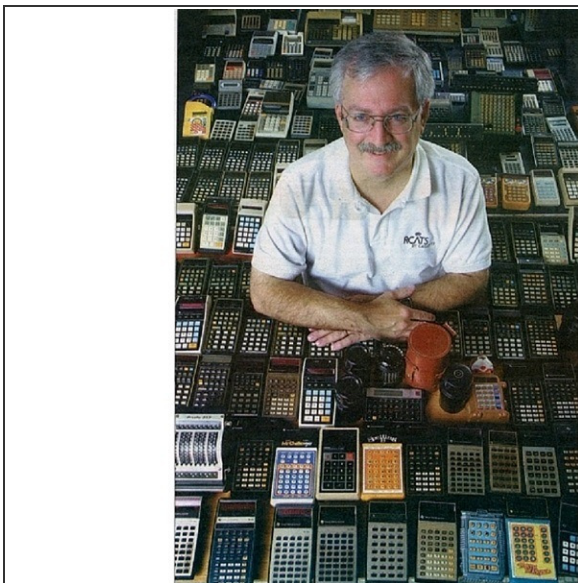
⚠ This solder layout lead to failure of data transfer operation. Charging was ok.

Step 10



- Finished product should be really messy.
- Test before sealing the leads with superglue or tape.
- ⚠ Take care not to bridge two connectors.
- ⚠ A small amount of force is all that is needed to break a freshly soldered lead. Take care not to excessively or repeatedly bend leads.
- Superglue the support contacts back to the board, excessive pressure when charging may break the power plug off a second time.
- ⚠ Keep the superglue from flowing into the mini usb opening, the glue flows like water.
- ⚠ A failed attempt will make the calculator useless and unusable, otherwise very hard to repair a second time.

Step 11



- Celebrate!

To reassemble your device, follow these instructions in reverse order.

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